

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008666**Date Inspected:** 15-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Peng, Li Lin**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in response to Bolting Inspection Notification Sheet No. 00087:

Segments 3AE/3 BE, angle bolt sets inside lower chevron

ZPMC QC Inspector Hu Mei Gang (QC1) reported to this QA Inspector, George Goulet, that ZPMC workers had previously performed final bolt tightening at the direction of QC1 using turn of the nut method after snug tightening and marking each bolt set. This QA Inspector, George Goulet, randomly observed the bolt sets at each location and the markings appeared to be in conformance with contract documents. This QA Inspector, George Goulet, also randomly put an open-end wrench with 400mm cheater bar on many of the bolts and all appeared to be tight. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location. This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM220033 – M22-2.5x65 – test result 470N.M

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Based on the information above this QA Inspector, George Goulet, concurred with QC1 for the issuance of green tag numbers.

Bay 11

This QA Inspector, George Goulet, also randomly observed the following work in progress in Bay 11:

Heat straightening of west tower, lift 4, skin D which appeared to comply with HSR1(T)-10104. ZPMC QC was identified as CWI You Qi Guo (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Yuan Wen Jie, who was not a CWI.

SMAW welding of weld joints ESD1-FESA4-D/F-7, 18 located on east tower. Welder was identified as 053829. ZPMC QC was identified as CWI An Qing Xiang (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Cao Cheng, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-345+485-SMAW-2G(2F)-repair-2. Also at this location and appearing to be monitoring the welding and recording data was ABF Representative Wang Jiang Hua.

SMAW welding of weld joint WD1-A6001-5-7B located on west tower. Welder was identified as 040611. ZPMC QC was identified as CWI You Qi Guo (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Ma Qian Li, who was not a CWI. The welding variables recorded by QC3 and QC3's assistant appeared to comply with WPS-B-T-4114. Also at this location and appearing to be monitoring the welding and recording data was ABF Representative Xia Yan.

SAW welding of weld joint WSTL3-4B/K-82B located on west tower shaft, lift 3, skins D to E. Welders were identified respectively from bottom to top as 044558, 044560, 044550, 056975, 202756. ZPMC QC was identified as CWI Li Lin (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

FCAW welding of weld joints ESD1-FDSA4-2C/D-42, 41, 5, 36, 1 located on east tower, lift 4, skin D. Welders were identified respectively as 068865, 069043, 066683, 066484, 066882. ZPMC QC was identified as CWI Guo Peng (QC3). The welding variables recorded by QC3 appeared to comply with WPS-B-T-4333-Tc-P5-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, asked each QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials

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for your project.

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Carreon, Albert

QA Reviewer